ARRAY SEARCHING OPERATIONS

ABSTRACT

5   In one embodiment, a programmable processor searches an array of N data elements in response to N/M machine instructions, where the processor has a pipeline configured to process M data elements in parallel. In response to the machine instructions, a control unit directs the pipeline

10 to retrieve M data elements from the array of elements in a single fetch cycle, concurrently compare the data elements to M current extreme values, and update the current extreme values, as well as M references to the current extreme values, based on the comparisons.